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Annex D
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~~TOP SECRET "U"~~

TICOM/I-153

revised

SECOND INTERROGATION OF UFFZ. KARRENBERG OF O.K.H.
ON THE BAUDOT - SCRAMBLER MACHINE ('BANDWURM').

Attached is a report of the second interrogation of Uffz. KARRENBERG by Capt. ERICSSON, I.C., at CSDIC (UK) on 14th Sept. 1945.

For previous report on KARRENBERG, see Ticom/I-30.

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The various questions asked and information obtained in the course of general discussion can be most conveniently put under separate headings.

Traffic

P.W. stated that he believed the 'Bandwurm' traffic was first intercepted in 1940 in Warsaw. As far as he had been able to make out no interest had then been taken in it. The first actual knowledge we had of a traffic with the same external features (chat, indicators, etc.) was in summer 1943 when the first real interest was taken in it and the traffic was sent to Berlin for analysis. He understood that it went to a Dr. Pietsch and Döring.

There were a number of links usually varying according to the number of armies (Frontstaebe). The maximum number was 8. One end of each link was always in Moscow, the other would be mobile, and move with the armies. There were also one or two Airforce links. There was also supposed to be a link with the Far East. Traffic was heavier from the 'outstations' to Moscow.

Method of transmission.

P.W. was convinced that the messages were sent by hand manipulation of the five Baudot keys to make up the required letter pattern. The speed on an average was 200 letters a minute (varying from 180 to 230). Remarks were either sent in clear before transmission, enciphered together with the messages, or most commonly sent on the second channel. P.W. regarded the inspection of this other channel as essential for getting the full story.

Clear.

From [redacted] other indications in the chat the messages were found to be reconnaissance and operational army traffic (no naval or diplomatic messages were seen). A certain amount of practice messages were also sent - excerpts from newspapers, Router and TAS reports and private correspondence. Addresses sent in cipher were never repeated in clear unless another type of traffic (5 fig.) happened to have the same address - in which case it would be sent in clear. Retransmissions did occur when one 'outstation' wished to send a message to another. The text would first be sent to Moscow and from there relayed to the other station - the text remaining basically the same but almost certainly with several alterations in punctuation, different mistakes and restarts. Quite often 5 figure traffic was enciphered.

The cypher machine

On this P.W. is somewhat confused. From indications in the chat and from inspection of the key obtained he is convinced that it is a machine. [redacted]

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[REDACTED]

In Autumn 1944 both the end of 'adder' and every pause in the cipher proper was preceded by seven key letters [REDACTED]. Then the traffic went off the air and reappeared in December with no external change except that the seven 'residue' letters had been reduced to three, suggesting a modification of the machine. In general it is clear that some of the features of the key at least have not changed in the last nine months.

Since December 1944 P.W. was solely responsible for this traffic and no other work was done on it apart from that on the spot.

The security precautions in general were not regarded as good and the Airforce links in particular were very slack - though even there no vital clues to the system were given away.

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(b) (3) - P.L. 86-36